ABSTRACT OF THE DISCLOSURE

The present invention discloses a novel new technique for detecting an intended activation of a touch sensor in the presence of noise. An algorithm is described that compares a cumulative deviation of a touch sensor reading to a scale to obtain a ratio expressed as a percentage. The percentage is compared against a target threshold and the period required to reach the threshold is examined to determine whether the rise or fall in touch sensor readings is attributable to a touch or to system noise. Additional disclosed embodiments describe circuits configured to operate in a noisy environment and have touch sensors arranged as arrays that are capable of detecting a direction and speed of a human-like contact.